

REMARKS

In view of the following comments, and pursuant to 37 C. F. R. § 1.111, Applicant respectfully requests reconsideration of the Office Action mailed April 18, 2007.

Summary

Claims 1-2, 4, 8, 12-16, 18, and 19 have been rejected under 35 U.S.C. § 102(b) as being anticipated in view of Bartman *et al.* (U.S. Pat. No. 4,891,053). Claim 17 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Bartman *et al.* Claim 3 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Bartman *et al.* in view of Angenent *et al.* (U.S. Pat. No. 4,895,585). Claims 6, 7, and 9-11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Bartman *et al.* in view of Nied *et al.* (U.S. Pat. No. 5,290,333). Claims 1-4 and 6-19 are currently pending. No amendments have been made in this response.

Claims 1-2, 4, 8, 12-16, 18, and 19: Rejections under 35 U.S.C. § 102(b)

Claims 1-2, 4, 8, 12-16, 18, and 19 have been rejected under 35 U.S.C. § 102(b) as being anticipated in view of Bartman *et al.* Applicant respectfully traverses these rejections, and submits that claim 1 is patentable over Bartman *et al.* As claim 1 is patentable, the claims that depend therefrom are also patentable.

Claim 1 is generally directed to a method for making a holder/optical-element assembly. Amended claim 1 now recites "allowing a projected portion of the optical element formed by pressure created during press-molding to extend radially outward from an outer edge" and "the projected portion being wholly contained by the void part." Support for these amendments can be found throughout the specification, and in particular, the Figures submitted with the application. For example, with regard to the limitation of "allowing a projected portion of the optical element formed by pressure created during press-molding to extend radially outward from an outer edge," Figures 1, 4, and 6 show that projected portions of a spherical lens radially extend into a void part of a lens holder during press molding. Similarly, Figures 1, 4, and 6 also show that the

projected portions of the lens are wholly contained by the void part. In each of the Figures, the projected portion is shown not to extend beyond the void part. For example, in describing the void part and with reference to Figure 1, the specification states that:

High flow resistance prevents the lens material 20a from flowing into the void part 14. The extra amount of lens material 20a, then, directly causes the molding error of the lens 20. On the other hand, low flow resistance allows the lens material 20a to easily flow into the void part 14 under molding pressure, and the void part 14 is filled with the lens material 20a. As described above, the spatial volume of the void part 14 is larger than the volume of the extra lens material 20a. Therefore, when the void part 14 is filled with the lens material 20a, the lens material 20a originally provided for forming the lens 20 also flows into the void part 14, causing molding error of the lens 20. That is, the level of flow resistance of the void part 14 must be determined **to allow all the extra lens material 20a to flow into the void part 14 under molding pressure**, while allowing no more lens material 20a to flow into the void part 14. (emphasis added).
Application Serial No. 10/803,015, filed March 17, 2004, p. 6, ¶0030

The specification also provides similar descriptions for the void part shown in Figure 4 and Figure 6. Hence, the specification fully supports the amendments made to claim 1.

To anticipate a claim, a reference must teach every element of the claim. See Manual of Patent Examination and Procedure ("MPEP") § 2131. In this case, amended claim 1 is patentable over Bartman *et al.* because Bartman *et al.* does not disclose every element of claim 1. In particular, Bartman *et al.* does not teach the limitations of "allowing a projected portion of the optical element formed by pressure created during press-molding to extend radially outward from an outer edge" and "the projected portion being wholly contained by the void part."

In addition, claim 1 further recites the limitations of "positioning a cylindrical holder material in a press-molding die, the holder material having a void part in an inner circumferential surface" and "wherein the cylindrical holder material comprises a cavity in the inner circumferential surface for retaining the projected portion of the optical element." Applicant respectfully submits that claim 1 is also patentable over Bartman *et al.* because Bartman *et al.* does not disclose a "holder material having a void part" as required by the claim.

Bartman *et al.* discloses that an "annular gap" is created by two coaxial metal rings telescopically slidable with respect to each other and having different diameters. Bartman

et al. further discloses when a lens blank is placed in the rings, an excess quantity of glass enters the annular gap when the lens blank is pressed:

According to the invention, this object is mainly achieved in that a bipartite holder is used comprising two coaxial metal rings telescopically slidable with respect to each other and having different diameters, said rings enclosing an annular gap, in that the holder with the lens blank is arranged in the mould in a telescopically extended position of the rings, in that during the pressing stroke the two rings are telescoped into each other and in that the excess quantity of glass is pressed from the central part of the lens blank into the annular gap. Bartman *et al.*, col. 1, ll. 50-60.

Bartman *et al.* further discloses that pressure from pressing the lens blank causes the excess glass to flow into and out of the annular gap:

The annular gap between the two rings can be determined so that with a given viscosity the associated pressure can be obtained. By means of the gap, a high pressure can be realized in the glass during the moulding process. If the volume is now still further reduced, glass will flow out of the gap under the influence of the pressure generated by the dies. *Id.* at cols. 1-2, ll. 68-6.

In contrast to the limitations of amended claim 1, the excess quantity of glass in Bartman *et al.* does not extend radially outward from the lens blank nor is the excess quantity of glass wholly contained by a void part. As shown in Figures 5 and 6 of Bartman *et al.*, the excess quantity of glass flows in a manner defined by the surfaces of the annular gap as the moulding dies 17 and 19 are pressed. Figure 6 shows that as the moulding dies are pressed, the excess quantity of glass moves in a vertical direction when flowing through the annular gap, and then flowing horizontally as the excess quantity of glass exits the annular gap. In contrast, claim 1 requires that the projected portion move in a radially outward direction, which the excess quantity of glass of Bartman *et al.* cannot do because of the surfaces defining the annular gap. Furthermore, because the annular gap of Bartman *et al.* does not retain the excess quantity of glass, but allows the excess quantity of glass to flow beyond the outer surface of the outer ring 21, Bartman *et al.* does not disclose the limitation of a "projected portion being wholly contained by the void part." Bartman *et al.* specifically discloses that that excess quantity of glass flows out of the annular gap:

At this stage, the convex surfaces must be solidified by heat transfer to the dies, while at the centre the glass must remain sufficiently viscous to be pressed through the gap. The moulding time is the time duration of this

stage, in practice about 1 second. FIG. 6 shows the moulded lens element 21 obtained in this way. The excess quantity of glass pressed away through the annular gap 9 forms a collar 25 on the lens element. *Id.* at col. 5, ll. 61-68.

Hence, for at least the reasons that Bartman *et al.* does not disclose the limitations of “allowing a projected portion of the optical element formed by pressure created during press-molding to extend radially outward from an outer edge” and “the projected portion being wholly contained by the void part,” amended claim 1 is patentable over Bartman *et al.*

In the absence of any evidence to the contrary, the use of different terms in the claims connote different meanings. *CAE Screenplates, Inc. v. Heinrich Fiedler GmbH & Co.*, 55 U.S.P.Q.2d 1804, 1810 (Fed. Cir. 2000). In this case, claim 1 recites that the “holder material ha[s] a void part in an inner circumferential surface,” and that the “holder material comprises a cavity in the inner circumferential surface for retaining the projected portion of the optical element.” Hence, claim 1 requires that a “holder material” comprise both a “void part” and a “cavity” in the inner circumferential surface of the “holder material.”

The language of claim 1 is consistent with the specification. By way of example, Applicant notes that in one embodiment of the invention, the application discloses that “[t]he inner circumferential surface 12 has a void part 14 including filling cavities 14a provided in the circumferential direction. Referring to FIG. 3A, a lens-holder material 10a having the void part 14 including the filling cavities 14a is formed with a certain level of dimensional accuracy by, for example, a cutting or casting process.” Application at p. 5, ¶0025. Similarly, and again by way of example, the application discloses that a second embodiment of the invention also includes a “void part”:

The lens holder 30 is made of, for example, aluminum or stainless steel, and has mounting surfaces 31, an inner circumferential surface 32, and an outer circumferential surface 33. The entire lens holder 30 has a void part 34 including many pores 34a. In particular, a lens-holder material 30a having a void part 34 including pores 34a, as shown in FIG. 5A, is formed through, for example, a powder sintering process or a foam-metal producing method. The lens holder 30 is formed by press-molding the lens-holder material 30a. *Id.* at p. 10, ¶0045.

Accordingly, Applicant respectfully notes that the terms “void part” and “cavity” are claim terms used differently in the specification. While other examples are readily apparent

from reading the application, Applicant has highlighted these two examples for the Examiner's convenience.

In contrast to the limitations of claim 1, Bartman *et al.* does not disclose a method for making a holder/optical-element assembly where the holder material has a "void part" in an inner circumferential surface. As discussed above, Bartman *et al.* explicitly discloses an "annular gap" defined by telescopically slidable rings.

The Office Action further characterizes Bartman *et al.* as disclosing a "cavity" in the inner circumferential surface of the two rings:

Bartman teaches positioning a lens blank into a holder consisting of two cylindrical rings which define an annular or "concentric" void/"cavity" in an inner circumferential surface. Restated with reference to the Figure 5 excerpt below, the cylindrical holder is understood to comprise an annular gap (9) or cavity in the inner surface (See notation in Fig 5 below). Office Action mailed April 18, 2007, p. 2.

The Office Action further includes a reproduction of Fig. 5 from Bartman *et al.* indicating that this figure shows an "annular gap" or "cavity." Accordingly, as the Office Action characterizes Bartman *et al.* as disclosing a "cavity" and Bartman *et al.* only discloses an "annular gap" defined by telescopically slidable rings, Applicant respectfully submits that Bartman *et al.* does not disclose a "holder material having a void part in an inner circumferential surface." As Bartman *et al.* does not disclose each and every limitation of claim 1, Applicant respectfully submits that claim 1 is patentable over Bartman *et al.* As claim 1 is patentable over Bartman *et al.*, claims 2, 4, 8, 12-16, 18, and 19 are also patentable for at least this same reason. Accordingly, Applicant respectfully requests withdrawal of these rejections.

Claims 3, 6, 7, 9-11, and 17: Rejections under 35 U.S.C. § 103(a)

Claim 3 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Bartman *et al.* in view of Angenent *et al.* This rejection is overcome for at least the same reason as discussed with reference to claim 1. Furthermore, the addition of Angenent *et al.* does not overcome the deficiencies in Bartman *et al.*

Claim 17 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Bartman *et al.* This rejection is overcome for at least the same reason as discussed with reference to claim 1.

Claims 6, 7, and 9-11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Bartman *et al.* in view of Nied *et al.* These rejections are overcome for at least the same reason as discussed with reference to claim 1. Furthermore, the addition of Nied *et al.* does not overcome the deficiencies in Bartman *et al.*

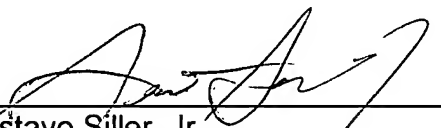
Accordingly, Applicant respectfully requests withdrawal of the rejections against claims 3, 6, 7, 9-11, and 17.

Conclusion

Therefore, in view of the above amendment and remarks, Applicant respectfully submit that this application is in condition for allowance and such action is earnestly requested.

If for any reason the Examiner is not able to allow the application, he is requested to contact the Applicant's undersigned attorney at (312) 321-4200.

Respectfully submitted,



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